DEPARTMENT OF AIRPORTS

COUNTY OF SAN BERNARDINO
ECONOMIC DEVELOPMENT
AND PUBLIC SERVICES GROUP

:RT AIRPORTS
21600 Corwin Road • Apple Valley, CA 92307 • (760) 247-2371 • Fax (760) 240-1350
39500 National Trails Highway • Daggett, CA 92327 • (760) 254-2422 • Fax (760) 254-3317

J. WILLIAM INGRAHAM, A.A.E.
Director

April 16, 2002

POTOMAC AVIATION TECHNOLOGY CORPORATION
Super Unicorn
Potomac Airfield
10300 Glen Way
Fort Washington, MD 20744

Dem Gary and David,

We have now had our Super Unicorn for 3 years, and I wanted to take the time to tell you that I truly don't know how we survived without it. It has been reliable and an asset to our airport. Our pilots are very happy with the operation; accuracy **and** especially tha **radio** check ability.

Our winds on the desert are normally high and create a ***safety*** **issue** which the Super Unicorn handles by giving wind speed. wind direction and advises the pilot of the correct runway for landing.

I think our favorite feature on the Super Unicorn is that we are able to add additional information for the pilot such as any dangerous obstacles, closed **runways,** etc. I have felt that after **hours** alone this unit **has paid** for itself.

I want to thank you both for your continued assistance and for keeping our system updated **with** the latest changes and mechanical devices. Your staff has been courtesy, helpful **and** has provided exemplary service to our airport **staff.** Thank you.

I would wholeheartedly recommend the Super Unicorn as well **as** Potomac Aviation Technology Corporation to any airport that **wants** a safe, reliable system to advise air traffic in a safe manner. We hope in the future to have Super Unicom's at our outlying airports.

Sincerely,

Diane Homer

Diane Homer
Apple Valley Airport
Apple Valley, California

U.S. Deportment
of Transportation

Federal Aviation
Administration

December 18. 2001

DAVID WORTOFSKY
POTOMAC AIRFIELD
10300 GLEN **WAY**
FORT WASHINGTON, MD 20744

SUBJECT: CLARIFICATION ON INSTRUMENT APPROACH **PROCEDURES** MINIMUMS

Dear Mr. Wortofsky:

I have received your **request** for clarification of **ceiling** information **with regards** to **FAA** instrument approach procedure minimums.

This letter confirms that instrument appmacb procedure minimums for all types of operations. **including** commercial **arc** predicated on the following:

A visibility value, **a minimum** descent altitude (MDA), a height above touchdown (HAT) for straight-in instrument approach procedures, **and** height above airport (HAA) for circling maneuvers.

Ceiling information is not **a** determinate for instrument approach procedures minimums.

A system, such as the Superunicom, that can provide a **FAA** approved altimeter setting, **FAA** approved **visibility,** meets all **of** the requirements.

Please let me **know** if you have **any questions** or **if I may** be ***of*** **further** assistance.

Sincerely,

ichael J. Vermuth
Program Manager,
New York **City Right Procedures** Office

Your Comments & Suggestions Make the System Better We'll look **forward** to *your* comments, both good ***and bod.*** Your comments help make the *SUPERUNICOM*® even better for everyone!

Email your comments and suggestions directly to us at bigcheese@superunicom.com

Thank You,

David Wartofsky – Big **Cheese**
Potomac Aviation Technology Corp. (800) **207 8999**

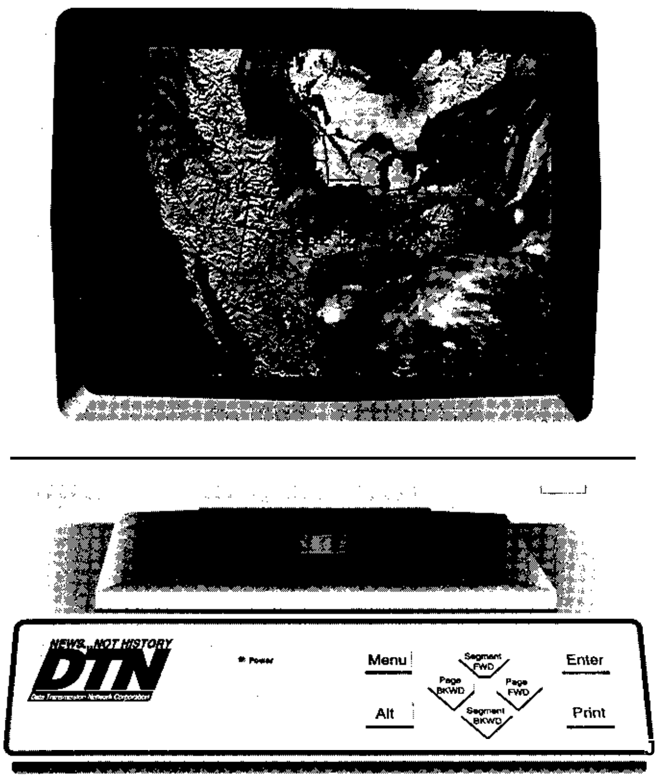
ROW TO APPLY FOR A SUPERUNICOM USTNG FAA AIP FUNDS

STEP 1	Contact your local Airport District Office ('ADO')	**Find Your FAA Airport District Office**
STEP 2	Submit your request to your FAA airport office	**Sample ADO Superunicom Request Letter**
STEP 3	Obtain bids via public notice	**Sample Request for Bid**
STEP 4	Accept your **AIP** grant	**OMB Application for Federal Assistance Form 424**
STEP 5	Tell us how you would like your **system** configured	**Setup Form** or Call 800 207 8999
STEP 6	Tell us where to ship it	**Setup Form Call 800 207** 8999

Link to Other Handy FAA Forms

CDA Airport Ex. 28

Data Transmission Network

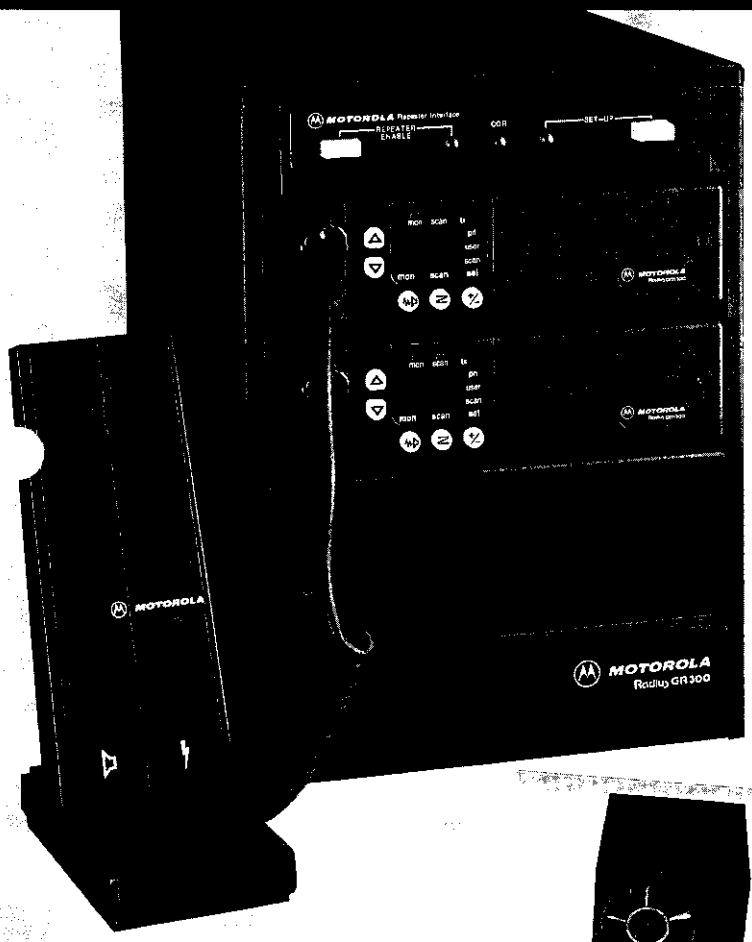


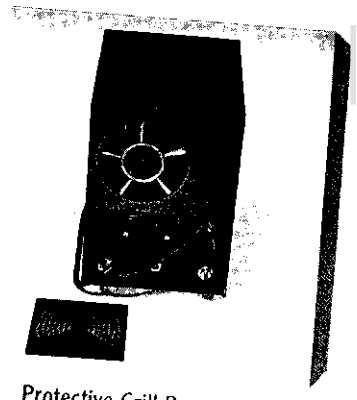
News...Not History

User Guide

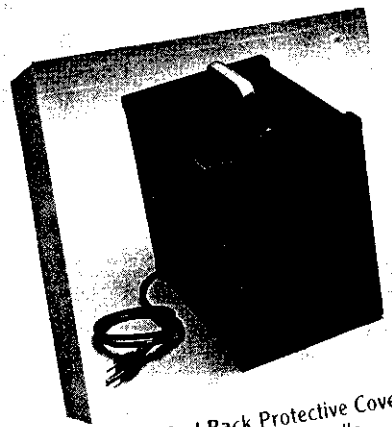
Increase Your Communications Range

The compact GR300 Repeater increases the range and capabilities of your mobile or portable communications, solving special coverage problems quickly, easily and inexpensively. It provides the flexibility to build a repeater which meets the frequency bands/power level requirements in a wide variety of applications.





Protective Grill Removed To Show Temperature Controlled Fan



Front And Back Protective Covers With Carrying Handle

Features/Advantages

- Designed for Portability
- Field Programmable
- Remote Repeater Setup and Knockdown
- Desktop Control Point Operation
- Supports VHF/UHF/Crossband
- Multiple Frequency Operation Available
- Temperature Controlled Fan for Continuous Duty Cycle (25 Watts to Duplexer)
- Time-out Timer

Standard Repeater Model Includes:

- Metal Enclosure with Temperature Controlled Fan
- Repeater Interface Communications Kit (RICK)
- Power Supply with Switchable Primary Voltage
- Complete Set of Cables to Facilitate All Interconnections

Complete Package Requires The Addition Of:

- 2 Radius GM300 Mobile Radios
- Duplexer (available in all sub-bands)

Alternatives To The Standard Configuration

- ZR310 Multiple Tone Panel
- 150R Basic Telephone Interconnect
- ZR320 Interconnect With Selective Calling
- ZR330 Remote Telephone Interface

Accessories

- Tone Remote Adapter
- DC Remote Adapter
- Front and Back Protective Covers with Carrying Handle
- C100 Deskset
- Antenna Systems
- Desk Microphone
- Many GM300 Accessories

Radius®

GR300 Repeater

MOTOROLA

Exceptional Performance Made Affordable

The Radius M120 is a 2-channel radio designed specifically to meet the needs of small group to large fleet operations that require basic mobile communications. It incorporates Motorola's breakthrough technology and superior sound quality, while eliminating features better suited for more complex operations. The M120 is able to provide you with high performance and durability at an extremely competitive price.

Features/Advantages

- Synthesized, Programmable 2-Channel Operation
- Available in Wideband VHF or UHF Models
- Adjustable Power Output
- High Power Models cover 25 to 40/45 Watts
- 12.5 or 20/25 kHz Channel Spacing Models*
- Multiple Coded Squelch Capability (PL/DPL)
- Programmable for Local or Wide Area Coverage
- Remote Mount Capability
- Internal Speaker
- Time-out Timer
- Busy Channel Lockout
- Rugged Construction
- Easy to Operate
  - -Monitor Button with LED Indicator
  - -Channel Button with LED Indicator
  - -Transmit/Busy LED Indicator

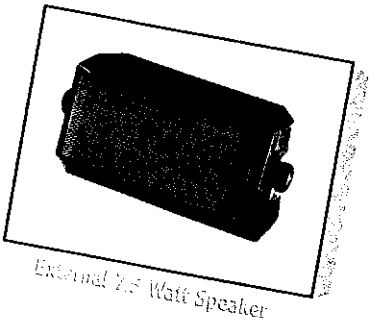
* See back spec page for details

Standard Model Includes

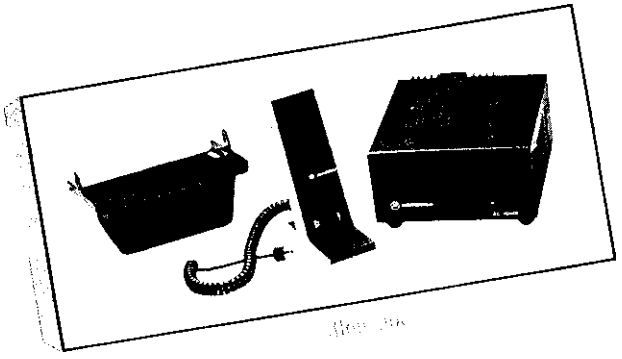
- Compact Microphone with Hang-Up Clip
- Power Cable
- Non-Locking Mounting Bracket

Accessories

- Touch-Code Encoding Microphone
- Removable Slide Mount Tray Package
- Base/Control Station Operation
- External 7.5 Watt Speaker



External 7.5 Watt Speaker



Radius®

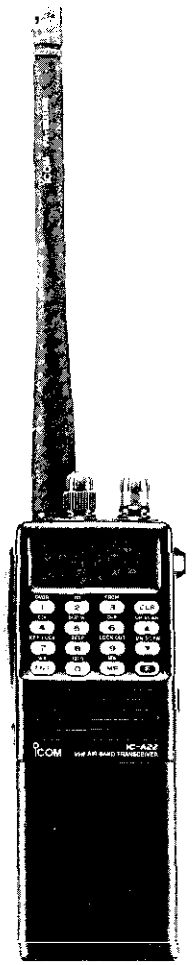
MOTOROLA

ICOM

INSTRUCTION MANUAL

VHF AIR BAND TRANSCEIVER

IC-A22
IC-AZZE

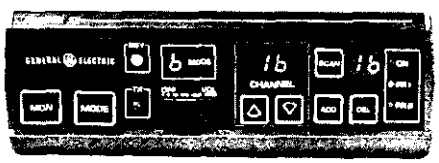


This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

Icom Inc.

LBI-31295D

GE Mobile Communications



PHOENIX™ SX, PSX200 & PSX SE

Installation Manual

COM 760 TSO

VHF Transceiver

Installation/Owner's Manual

VAL®


Digital
AUDIOVOX
AUDIOVOX™

EXPANDING COMMUNICATIONS

Radius®

MOTOROLA

GM300
MOBILE TWO-WAY RADIOS

Radius GM300 Series Mobile Two-way Radio Specifications

General

	VHF			UHF					
Model Series:	M03GMC	M33GMC	M43GMC	M04GMC	M34GMC	M44GMC	M44GMC	M44GMC	M44GMC
Frequency Range:	146-174 MHz			438-470 MHz	438-470 MHz	403-433 MHz	438-470 MHz	465-495 MHz	490-520 MHz
RF Output:	1-10W*	10-25W*	45W	1-10W*	10-25W*	25/40W	25-40W*	25/40W	25/35W
Channel Capacity:	8 or 16								
Frequency Separation:	28 MHz			32 MHz		30 MHz	32 MHz	30 MHz	
Primary Input Voltage EIA: CEPT 84:	13.8±10% 13.2±20%								
FCC Designation:	ABZ99FT3032	ABZ99FT3030	ABZ99FT3033	ABZ99FT4033	ABZ99FT4030	ABZ99FT4032	ABZ99FT4034	ABZ99FT4035	ABZ99FT4036
Typical Current Drain Rated Audio (7.5W):	1.5A								
Transmit:	4.0A	7.0A	15.0A	4.0A	7.5A	12.5A			
Standby:	400mA								
Squelch Capability:	Tone Coded, Digital Coded and/or Carrier Squelch								
Dimensions:	2" x 7" x 7.75" (50.8 x 178 x 198 mm)								
Weight:	61 oz. (1.7 kg)								

*Continuously variable power

Frequency Stability (-30°C to +60°C):	1.00025%			
Spurs/Harmonics 1 to 25W: >25W: Exceptions:	-36 dBm (.25µW) -13 dBm (50 µW) (403-433 MHz) / -36 dBm (.25 µW)			
Audio Response: (From a 6 dB/Oct. Pre-Emphasis 300 to 3000 Hz, 2550 Hz @ 12.5 kHz)	+1 / -3 dB			
Audio Distortion: (@ 1000 Hz, 60% of Rated Mar. Deviation)	<3% EIA			
FCC Modulation @ 20/25/30 kHz: @ 12.5 kHz:	16KOF1D, 16KOF2D, 16KOF3E 11KOF1D, 11KOF2D, 11KOF3E			
Output Impedance:	50 Ω			
Modulation Sensitivity:	80 mV for 60% max. deviation at 1000Hz			
Channel Spacing:	20/25/30 kHz	12.5 kHz	20/25/30 kHz	12.5 kHz
FM Noise EIA: CEPT 84:	45 dB 55 dB	40 dB 50 dB	40 dB 50 dB	35 dB 45 dB

Optional Signalling Features with RapidCall Package

Available in 16-Channel Models Only

Signalling Format: encode/decode	PTT ID	Call Alert	Voice SelCall	Emergency	Radio Check
MDC-1200:	x	x	x	x	x
Quik-Call II:		x	x		
DTMF:	x	x	x		
Star (encode only):	x			x	

Also Includes Singletone Repeater Access & DTMF - ANI for Phone Access & Select V Signalling

For further information contact:

ilitary Standards 810 C, D & E

	810C		810D		810E	
plicable MIL-STD:	Methods	Procedures	Methods	Procedures	Methods	Procedures
tow Pressure:	5w.1	1	500.2	'1	5w.3	1
High Temperature:	501.1	1.2	501.2	1,2	5013	1.2
Low Temperature:	502.1	1	502.2	1.2	502.3	1.2
emperature Shock:	503.1	1	503.2	1	503.3	1
Solar Radiation:	505.1	1	505.2	1	505.3	1
Rain:	506.1	2	506.2	2	506.3	2
Humidity:	507.1	2	507.2	2	507.3	2
Salt Fog:	509.1	1	5W.2	1	509.3	1

	VHF		UHF	
Channel Spacing:	12.5 kHz	20/25/30 kHz	12.5 kHz	20125 kHz
Sensitivity EIA: 12dB SINAD: CEPT 84: 20 dB SINAD:	.35 µV .45 µV	.30µV .40µV	.35 µV .45 µV	.30 µV .40 µV
Squelch:		10 dB SINAD		
Selectivity EIA:	-70 dB	-80 dB	-65 dB	-75 dB
Intermodulation* EIA: CEPT 84:	-70 dB -73 dB	-78 dB -73 dB	-65 dB -70 dB	-75 dB -70 dB
Frequency Stability: (-30°C to +60°C)	±.00025%			
Spur Reiection EIA CEPT 84:	-80 dB -75 dB		-75 dB -70 dB	
Image Rejection EIA CEPT 84:	-80 dB -80 dB		-75 dB -75 dB	
Audio Output: **External Speaker (8Ω)** **EIA (@ < 5% Dist):** **CEPT 84 (@ < 10% Dist.):** **Internal Speaker:**	7.5 W 5.0 W 3.0 W Nominal			
EIA Useable Bandwidth:	1.2 kHz	2.0 kHz	1.2 kHz	2.0 kHz
Input Impedance:	50 Ω			

*Local mode provides an additional 10 dB protection against wideband interference

MOTOROLA

In 1988 Motorola was a winner of the first Malcolm Baldridge National Quality Award.

National Quality Award

HT 1000

PORTABLE RADIOS

Motorola is creating new horizons in radio . . . with innovations that make dedicated two-way communications faster, clearer and easier to use.

Introducing the HT 1000 radio . . . a small, rugged, versatile and feature packed portable. It is available in 2, 8 and 16 channel models, and supports UHF or VHF operation.

Feature Packed

Small and lightweight, the HT 1000 portable breaks the notion that a radio's size and weight must increase as the portable grows in capability. The HT 1000 radio is loaded with features never before offered in a Motorola HT portable product. Features such as Priority Scan, Unit ID, Emergency, Call Alert Decode, and a built-in noise canceling microphone.

Frequency Flexibility

The HT 1000 portable encompasses Motorola's broadest band range yet. A single model can operate from 136 to 174 MHz—and with only 2 models you'll cover the entire UHF band, as well. Additionally, programmable channel spacing is a standard feature in the HT 1000 radio, allowing your portable equipment to operate in either a 25 kHz or 12.5 kHz spaced communications system.

Versatile

The design of the HT 1000 portable gives you the ability to configure the radio's operational parameters to fit the user's needs. Not only can feature sets be mode slaved for automatic operation, but the top mounted three position toggle switch can be programmed to allow for manual feature access.

Rugged

The HT 1000 portable also meets or exceeds numerous Mil. Std. 810C, D and E requirements, and is backed by Motorola's 1 Year Parts and Labor Warranty for protection against defects in material and workmanship.

The New Horizon

The HT 1000 portable offers all the quality and reliability you have come to expect from Motorola . . . and more. Never before has Motorola produced an HT radio with such advanced capabilities . . . truly a new horizon in radio communications.

MOTOROLA

norstar

Norstar-PLUS
Compact ICS
Telephone Feature Card

CDA Airport Ex. 29

OBSERVER HANDBOOK

AUTOMATED WEATHER OBSERVING SYSTEM (AWOS)

(INTERIM)

MAY 15, 1991

REVISION "A"

U.S. Department
of Transportation
Federal Aviation
Administration

800 Independence Ave., S.W.
Washington, D.C. 20591

MAY 15 1991

SUBJECT: Revision "A", Observer Handbook, Automated Weather Observing System (AWOS) (Interim)

TO: All Holders of the Observer Handbook

Enclosed is Revision "A" to the Observer Handbook, Automated Weather Observing System (AWOS) (Interim), dated May 15, 1991. It supersedes the basic Handbook dated August 1, 1989: Change 1 dated December 1, 1989: Change 2 dated April 15, 1990; and Change 3 dated December 18, 1990. A vertical bar (|) in the left margin indicates changed material. Currrently commissioned AWOS sites are to implement the revised procedures within two weeks of receipt of the document. New sites are to implement the revised procedures concurrent with the commissioning of the AWOS.

This revision has been coordinated with the National Weather Service (NWS).

Sincerely,

FOR George McConnell, Jr.
Associate Program Manager, Weather Sensors

Enclosure

VSBY

24 = < 1/4
25 = 1/4
50 = 1/2
100 = 1
200 = 2
250 = 2 1/2
350 = 3 1/2
500 = 5
550 = 75

5/15/91

PREFACE

This Observer Handbook (Interim), Automated Weather Observing System (AWOS), was prepared by the Federal Aviation Administration (FAA) in cooperation with the National Weather Service (NWS). The instructions contained in this Handbook have been coordinated with both agencies.

This revision (Revision "A") of the Handbook supersedes the basic AWOS Observer Handbook dated August 1, 1989: Change 1 dated December 1, 1989; Change 2 dated April 15, 1990; and Change 3 dated December 18, 1990.

User questions or comments should be addressed to:

FAA - Ken Kraus (ANW-140/Tel: 202-267-8676), or to
NWS - Mike Rigney (W/OSO14/Tel: 301-~~427-7792~~ 713-1792)

George McConnell Jr.

George McConnell, Jr.
Associate Program Manager,
Weather Sensors (FAA)

Gerald F. O'Brien

Gerald F. O'Brien
Chief, Surface Observations
(NWS)

RECORD OF CHANGES

Change No.	Effective Date	Initials	Date Entered	Remarks

CON N [redacted]

TABLE OF CONTENTS
(continued)